



Examiner's report

MA/FMA Management Accounting

Key themes from the examiner's reports 2015-2018

The examining team share their observations from the marking process to highlight strengths and weaknesses in candidates' performance, and to offer constructive advice for future candidates.

General Comments

The intention of this report is that, when considered in conjunction with previous reports, candidates at future sittings will have a resource which maximises their chance of success. The most effective way to use these reports is to consider both the technical content of each question, and the approach to answering the question – noting that different question types will require slightly different approaches.

In considering the technical content, candidates should make sure that they have a clear understanding of that content. Whilst not every candidate will use exactly the same approach, it is important to ensure that a logical and sequential approach is applied, based on relevant technical knowledge.

The examination consists of two sections. Section A of the exam contains 35 objective test questions – each worth two marks and section B contains 3 MTQs worth ten marks each. All questions are compulsory.

Part A- sample objective test questions:

Example 1

The following variances occurred last period:

Sales volume contribution	\$20,000 Favourable
Sales price	\$5,000 Adverse
Total variable cost	\$18,000 Favourable
Fixed cost expenditure	\$12,000 Adverse

If the flexed budget contribution was \$200,000, what was the actual contribution?

A \$213,000

B \$218,000

C \$221,000

D \$233,000

What does this test?

- ✓ The reconciliation of budgeted and actual contribution under standard marginal costing.

What is the correct answer?

- ✓ The correct answer is **A**
- The safest way to answer this type of question is to layout the relevant section of the standard costing operating statement and to “plug in” the figures provided, as shown below:

	\$
Flexed budget contribution	200,000
(= actual sales (units) x standard contribution per unit)	
Sales price variance	(5,000) Adverse
Total variable cost variance	<u>18,000</u> Favourable
Actual contribution	<u>213,000</u>

- Selecting option **B** correctly included the total variable cost variance in their calculations but failed to include the sales price variance.
- The most popular answer was **C**. To obtain this answer, candidates must have erroneously included the following variances in their calculations.
 - (i) The sales volume contribution variance: this suggests that they confused flexed budget contribution with the original budgeted contribution, and
 - (ii) The fixed cost expenditure variance: this suggests that they thought contribution was calculated after deducting fixed costs. This is a disturbing error.
- Selecting option **D** suggested the sales volume contribution was taken into account when calculating the actual contribution.

Example 2

An accountant is using the repeated distribution method to reapportion service department costs. The following table shows the work she has done so far. Figures that are yet to be calculated are shown as “???”.

	Production department 1 \$	Production department 2 \$	Service department X \$	Service department Y \$
Apportioned and allocated production overheads	60,000	80,000	20,000	10,000
Service department X	8,000	10,000	-20,000	2,000
Service department Y	7,200	4,200	600	-12,000
Service department X	???	???	-600	0
Total production overhead	???	???	0	0

What is the total production overhead for production department 1 after the remaining reapportionment of the overheads of service department X?

- A** \$74,600
- B** \$75,800
- C** \$75,440
- D** \$75,467

What does this test?

- ✓ The reapportionment of service cost centre costs to production cost centres.

What is the correct answer?

- ✓ The correct answer is **D**
- By examining the second row of figures in the table it is clear that service department X's costs are reapportioned on a 40% (8,000/20,000) for production department 1, 50% (10,000/20,000) for production department 2, 10% (2,000/20,000) for service department Y. On the final reapportionment no overhead is reapportioned to service department Y, so the balance of overhead should be reapportioned 40/90 and 50/90. This results in the following total production overhead for production department is shown below as:

$$(\$60,000 + \$8,000 + \$7,200) + 40/90 \times \$600 = \$75,467.$$
- The most popular answer was **C**. To obtain this answer candidates must have performed the following calculation:

$$(\$60,000 + \$8,000 + \$7,200) + 40\% \times \$600 = \$75,440.$$

This approach would result in some overhead being reapportioned to service department Y, and if continued would result in the reapportionment process carrying on for ever.

- Selecting option **A**: candidates would have incorrectly deducted \$600 from the overheads already allocated, apportioned and reapportioned to production department 1
- Selecting option **B**: candidates would have incorrectly added on \$600 to the overheads already allocated, apportioned and reapportioned to production department 1.

Example 3

Budgeted costs and revenues for an output level of 4,000 units are given below. It is known that after an output level of 5,000 units there is a step up in fixed costs of \$1,000.

	\$ per unit
Sales price	30
Variable cost	18
Fixed cost	<u>4</u>
Profit	<u><u>8</u></u>

What is the flexed budget profit at an output level of 6,000 units?

- A** \$47,000
B \$48,000
C \$55,000
D \$56,000

What does this test?

- ✓ Flexed budgeting

What is the correct answer?

- ✓ The correct answer is **C**
- First candidates need to understand that contribution varies in linear proportion to volume, but fixed costs do not. The contribution per unit needs to be calculated as $\$30 - \$18 = \$12$ which is then multiplied by the 6000 units to give a total contribution of \$72,000. The fixed costs at 4000 units will be $\$4 \times 4000 \text{ units} = \$16,000$ but after 5000 units there is a step up of \$1,000 giving a total fixed cost of \$17,000. The profit at 6000 units will therefore be total contribution of \$ 72,000 less the fixed costs of \$17,000 giving a profit of \$55,000.
 - Selecting option **D**, was nearly correct, candidates simply did not deduct the step in fixed costs. Note that distractors (incorrect answers) in objective testing questions sometimes are based on figures arrived at by incomplete calculations. Candidates should try to avoid choosing answers until they are sure that their calculations are complete.
 - Selecting option **A**, candidates presumably believed that profit per unit remained constant as volume changed. Accordingly they multiplied 6,000 units by \$8 per unit profit and then subtracted the \$1,000 step.

- Selecting option **B**, took a similar path as option A, but failed to subtract the step up in fixed costs.

To construct a flexed budget candidates need a firm grasp of cost behaviour. This appeared to be lacking in the majority of candidates who chose options A or B.

Example 4

Normally no losses are expected from a process. Any abnormal losses are sold for scrap.

Which of the following calculates the net cost to the company of one unit of abnormal loss?

- A** Total input cost ÷ actual output units
- B** Total input cost ÷ expected output units
- C** (Total input cost – total scrap value) ÷ expected output units
- D** (Total input cost ÷ expected output) – scrap value per unit

What does this test?

- ✓ Process costing with abnormal losses

What is the correct answer?

- ✓ The correct answer is **D**

The principle here is that whilst it is reasonable to build the net cost of normal (expected) losses into production cost (because they are a normal feature of the process), it is not reasonable to do the same with abnormal losses, because, as their name suggests, they are not a normal feature of the process.

- The production cost of abnormally lost units is the same as the cost of good production (Total input cost less the revenue from the sale of normal losses ÷ expected output). In this case no losses are expected, so this is equal to total input cost ÷ expected output. Because the abnormal losses can be sold for scrap, their **net** cost is the cost per unit of making them, less the revenue derived from their sale that is (Total input cost ÷ expected output) – scrap value per unit.
- Selecting option **A** is incorrect because it would spread the cost of abnormal losses over all production units
- Selecting option **B** is incorrect because it fails to recognise the benefit of abnormal losses (the revenue derived from selling them as scrap)
- Selecting option **C** was chosen by majority of candidates. Presumably because it resembles the text book equation for calculating unit cost (Total input cost – revenue from normal losses scrap) ÷ expected output. It is incorrect here because all the losses are abnormal and it spreads the scrap value benefit of the abnormal losses across all the units produced.

Example 5

A company borrows \$10,000 repayable in five years' time and immediately uses the loan to repay its overdraft.

What will be the effect on the company's capital gearing and current ratios?

	Capital gearing	Current ratio
A	Increase	Increase
B	Increase	Decrease
C	Decrease	Increase
D	Decrease	Decrease

What does this test?

- ✓ Financial performance measurement (profitability, liquidity, activity and gearing ratios)

What is the correct answer?

- ✓ The correct answer is **A**
 - The capital gearing ratio is calculated as non-current liabilities ÷ ordinary shareholders funds (this is sometimes described as the debt to equity ratio)
or
non-current liabilities ÷ (ordinary shareholders funds + non-current liabilities) (sometimes described as debt to equity + debt ratio)
 - A five year bank loan will increase the company's non-current liabilities. Under either definition above this will increase capital gearing.
 - The current ratio is calculated as current assets ÷ current liabilities
 - A reduction in overdraft will reduce a company's current liabilities will therefore increase the value of the current ratio.

From the selections made by candidates it appears that many candidates did not know the definitions of the ratios involved, or that they were unable to process the data in the question. The technical articles section of the MA/FMA section of the ACCA website contains a short article that defines and explains the ratios which candidates need to know for this exam. Candidates are recommended to read the article below.

<http://www.accaglobal.com/uk/en/student/exam-support-resources/fundamentals-exams-study-resources/f2/technical-articles/ratio-analysis.html>.

For those having difficulty in processing the data given in the question, it is suggested that they “invent” some simple numbers to represent the existing position and then process the data in the question to see the effect on the ratios. This approach is useful in many ratio analysis problems.

For example:

	Existing position (assumed)	Changes	New position
	\$000	\$000	\$000
Non-current liabilities	30	+10	40
Ordinary shareholders' funds	100		100
Current assets	40		40
Current liabilities	20	-10	10
Capital gearing (D/E)	30.00%		40.00%
Current ratio	2.00		4.00

Example 6

The following observations of output and cost have been made:

Output (units)	Cost
8,000	\$39,400
20,000	\$68,000

It is known that at output levels above 15,000 units, variable cost per unit drops by \$1 per unit for all subsequent units produced.

What is the variable cost for each unit of output above 15,000 units?

- A** \$1.80
- B** \$0.97
- C** \$2.80
- D** \$3.40

What does this test?

- ✓ High-low analysis.

What is the correct answer?

- ✓ The correct answer is **A**
 - Since the variable cost is \$1 lower per unit after 15,000 units, the total cost for 20,000 units must be adjusted first before using the high-low method. Therefore, the total cost for 20,000 would be \$68,000 + (20,000-15,000) units x \$1=\$73,000.
 - Variable cost per unit can then be calculated as (assuming that there is no change in variable cost)

$$= (\$73,000 - \$39,400) / (20,000 \text{ units} - 8,000 \text{ units}) = \$2.80$$

- Variable cost per unit after 15,000 units would then need to be adjusted for the \$1 lower as = \$2.80 - \$1.00 = \$1.80.
- Selecting option **B**, incorrectly calculates the change in cost for the high-low calculation, as follows:
Variable cost per unit (up to 15,000 units)
 $= (\$68,000 - \$39,400 - \$5,000) / (20,000 \text{ units} - 8,000 \text{ units}) = \1.97
Variable cost per unit after 15,000 units = \$1.97 - \$1.00 = \$0.97
- Selecting option **C** correctly calculates the variable cost per unit for output levels up to 15,000 units but failed to adjust for the \$1 per unit decrease after 15,000 units. Using a partially complete answer as an alternative is a tactic commonly used by objective testing examiners. It is encouraged that candidates check their calculations are fully complete before selecting their answer.
- Selecting option **D**, calculates the average cost per unit at 20,000 units (\$68,000/ 20,000 units= \$3.40) rather than variable cost per unit after 15,000 units as required. The syllabus clearly indicates that candidates need to be able to calculate semi-variable costs, stepped fixed costs and changes in variable cost per unit when using the high-low method. Candidates need to practise the calculations required in this area.

Comments on Section B-multi-task questions

Section B contains 3 multi-task questions taken from the syllabus areas C Budgeting, D Standard Costing and E Performance Measurement. This approach will continue in future exams up to August 2019. The balance of objective test questions in section A reflects this weighting so as to preserve the overall balance of the exam as highlighted by the current specimen exam up to August 2019. From September 2019 onwards, the syllabus will be updated where more information on the new weightings for the exam will be made available.

Section B questions may be set out in different format, including:

- Choosing more than one correct response i.e. choosing two correct answers from six options
- Matching a set of definitions or descriptions to correct words
- Choosing the correct response from a drop down list
- Clicking on the correct response in a graph or diagram

Most of the multi-task questions are scenario-based. Some of the requirements test the knowledge of specific topics whereas other questions will require more application.

There is no evidence to suggest that questions in section B pose more difficulty than those in section A, however candidates can take longer to attempt section B as there is more information to read. It is therefore imperative that candidates practice as many different styles of questions as they can so they can manage their time efficiently.

Common **problems highlighted** from **section B questions** include the following:

- An inability to calculate payback, NPV and IRR.
- An inability to calculate standard cost variances.

- An inability to calculate residual income and ROCE.
- An apparent difficulty with questions presented in spreadsheet format especially budgeting questions.
- A difficulty with questions involving the reconciliation of actual and budgeted figures via standard costing variances.
- A difficulty with questions involving non-profit performance measurement indicators.

Summary

Future candidates are advised to:

- Study the whole syllabus, as the exam will cover the breadth of the syllabus
- Practise as many questions as possible in different formats, number entry questions appear to be a particular weakness
- Read questions very carefully in the examination
- Ensure that their calculations are complete before selecting their answer to multiple choice questions
- Try to attempt the “easy” examination questions first
- Try not to spend too much time on apparently “difficult” questions
- Attempt all questions in the examination (there are no negative marks for incorrect answers)
- Consider the “reasonableness” of their answers in section B (an inventory days figure of 27 million days is unlikely)